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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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04/17/2002

Robert Arthur Sawhill JR.

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07/26/2004

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EXAMINER

HOLLINGTON, JERMELE M

ART UNIT

PAPER NUMBER

2829

DATE MAILED: 07/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/980,055

Applicant(s)

SAWHILL ET AL.

Examiner

Jermele M. Hollington

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 12-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claim 4 is objected to because of the following informalities: claim 4 depends off of claim 1. Claim 4 states: "...the planar member is manufactured from a glass material." In the amending claim 1, it states: "...planar member comprised of a glass material...." From the examiner's view, it appears both limitations are the same. Therefore, the examiner will like to suggest to the applicants to delete claim 4 or to amend claim to further limit the parent claim. Further, the limitation "a glass material" in claim 4 should be changed to --the glass material-- to avoid a duplicant positive recitation of the limitation in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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4. Claims 1-8 and 10-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagasawa et al (5532613) in view of Kern (4812745).

Regarding claims 1, Nagasawa et al disclose [see Fig. 3] an interface device [see Note below] comprising a body member (intermediate portions 32) a number of elongate contact members (probe needles 30), each elongate contact member (30) comprising a metal wire (rod-like member 30a) with a diameter of less than or equal to 10 mil [see col. 5, lines 21-22] having a contact end (tip portion 31) adapted to contact a bond pad (electrode pad 42) of an IC (wafer W) to be tested, and a body portion (rod-like member 51 shown in Fig. 4) coupled to the body member (32) and a guide member (guide plates 22a and 23a) electrically coupled to the body member (32), the guide member (22a and 23a) comprising a planar member having a number of apertures [not number but shown in Fig. 3 see also col. 5, lines 31-59] therein, the contact end (31) of each elongated member extending through a respective aperture [see Fig. 3] in the guide member (22a and 23a), and the width of each contact end (31) being less than the width of the aperture [see Fig. 3] to permit lateral movement of each contact end (31) within the respective aperture. However, Nagasawa et al do not disclose the planar member of the guide member comprised of a glass material as claimed. Kern discloses an interface device [see Fig. 1] comprising elongate contact member (probe 10) with a contact end (contact tip 22, 24 or 26) and a guide member (guide plate 12) having a planar member manufactured from a glass material (glass-filled epoxy board) [see col. 1, lines 40-44 and lines 63-65] with a number of apertures (holes 28, 20 and 32). Further, Kern teaches that the addition of guide plate with a glass material planar member (glass-filled epoxy board) is advantageous because it flex slightly so that the tip portions of the probe accurately aligned and correctly spaced during measurement of the device

under test. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the apparatus of Nagasawa et al by having the planar member of the guide plate with a glass material as taught by Kern in order to flex slightly so that the tip portions of the probe accurately aligned and correctly spaced during testing.

[Note: the recitation “for providing an interface between testing equipment and an integrated circuit to be tested” has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).]

Regarding claim 2, Nagasawa et al disclose the elongate contact member (30) is formed from metal wire (rod-like member 30a) with a diameter of 1 mil to 10 mil [see col. 5, lines 21-22].

Regarding claim 3, Nagasawa et al disclose the elongate contact member (30) has a diameter of between 1 mil to 6 mil [see col. 5, lines 21-22].

Regarding claim 4, Nagasawa et al disclose a guide member (guide plates 22a and 23a) electrically coupled to the body member (32), the guide member (22a and 23a) comprising a planar member having a number of apertures [not number but shown in Fig. 3 see also col. 5, lines 31-59] therein. However, Nagasawa et al do not disclose the planar member of the guide member is manufactured from a glass material as claimed. Kern discloses an interface device [see Fig. 1] comprising elongate contact member (probe 10) with a contact end (contact tip 22, 24 or 26) and a guide member (guide plate 12) having a planar member manufactured from a glass material (glass-filled epoxy board) [see col. 1, lines 40-44 and lines 63-65] with a number

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of apertures (holes 28, 20 and 32). Further, Kern teaches that the addition of guide plate with a glass material planar member (glass-filled epoxy board) is advantageous because it flex slightly so that the tip portions of the probe accurately aligned and correctly spaced during measurement of the device under test. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the apparatus of Nagasawa et al by having the planar member of the guide plate with a glass material as taught by Kern in order to flex slightly so that the tip portions of the probe accurately aligned and correctly spaced during testing.

Regarding claim 5, Nagasawa et al disclose a guide member (guide plates 22a and 23a) comprising a planar member having a number of apertures [not number but shown in Fig. 3 see also col. 5, lines 31-59] in combination with Kern who discloses an interface device [see Fig. 1] comprising a guide member (guide plate 12) having a planar member manufactured from a glass material (glass-filled epoxy board) [see col. 1, lines 40-44 and lines 63-65] with a number of apertures (holes 28, 20 and 32). However, neither Nagasawa et al nor Kern disclose the glass material is borosilicate glass. It is well known to use different type of glass for a guide member where needed (see MPEP 2144.04; *In re Seid*, 161 F.2d 229, 73 USPQ 431 (CCPA 1947)). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use different type of glass materials for a guide plate since the different type glass materials are matters relating to ornamentation, which have no mechanical function, that would provide support in a selective manner to each individual user that uses probe or elongated contact member to test a device under test.

Regarding claims 6 and 10, Nagasawa et al disclose [see Fig. 3] an interface device [see Note below] comprising an elongate contact member (probe needle 30) comprising a body

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portion (rod-like member 51 shown in Fig. 4) and a contact end (tip portion 31), the contact end (31) adapted to contact a bond pad (electrode pad 42) of an IC (wafer W) to be tested, and the contact end (31) having friction reducing coating (Inconel with gold) [col. 8, lines 8-30].

[Note: the recitation “for providing an interface between testing equipment and an integrated circuit to be tested” has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).]

Regarding claim 7, Nagasawa et al disclose the tip surface of the contact end (31) is coated with friction reducing coating (Inconel with gold) [col. 8, lines 8-30].

Regarding claim 8, Nagasawa et al disclose the coating (Inconel with gold) is a hard coating.

Regarding claim 11, Nagasawa et al disclose the side surfaces (not number but shown in Fig. 3) of the contact end (31) are coated with friction reducing coating (Inconel with gold) [col. 8, lines 8-30].

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagasawa et al (5532613).

Regarding claim 9, Nagasawa et al disclose the tip surface of the contact end (31) is coated with friction reducing coating (Inconel with gold) [col. 8, lines 8-30] that is a hard coating. However, they do not disclose the hard coating is selected from chrome nitride and titanium nitride as claimed. It is well known to use different type of coating material for a contact tip where needed (see MPEP 2144.04; *In re Seid*, 161 F.2d 229, 73 USPQ 431 (CCPA 1947)). It

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would have been obvious to a person having ordinary skill in the art at the time the invention was made to use different type of coating material for a contact tip since the different type coating materials are matters relating to ornamentation, which have no mechanical function, that would provide support in a selective manner to each individual user that uses contact tip to reduce friction on the tip when testing a device under test.

Conclusion

6. Applicant's arguments filed March 10, 2004 have been fully considered but they are not persuasive.

Under Claim Rejections-35 USC 102, the applicants' state: *"Claim 1 as currently amended is no longer anticipated by Nagasawa. In particular, Nagasawa does not disclose that the "width of each contact end less than width of the respective aperture to permit lateral movement of each contact end within respect aperture"."*

In response to the above arguments, the examiner will like to remind the applicants "Limitations appearing in the specification but not recited in the claim are not read into the claim" [see *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969)]. Therefore, it is noted that the features upon which applicant relies (i.e., width of each contact end less than width of the respective aperture to permit lateral movement) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Under Claim Rejections-35 USC 103, the applicants' state: *"However, neither Nagasawa, Kern alone or when combined with each other or any other prior art of record either anticipates or renders obvious the claimed feature of the "width of each contact end less than width of the respective aperture to permit lateral movement of each contact end within respect aperture"."*

In response to the above arguments, the examiner will like to remind the applicants "Limitations appearing in the specification but not recited in the claim are not read into the claim" [see *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969)]. Therefore, it is noted that the features upon which applicant relies (i.e., width of each contact end less than width of the respective aperture to permit lateral movement) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Base on the above arguments by the examiner, the following is being given.

7. **THIS ACTION IS MADE FINAL.** Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. This application contains claims 12-17 drawn to an invention nonelected with traverse in the reply filed on July 24, 2003. A complete reply to the final rejection must include

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cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jermele M. Hollington whose telephone number is (571) 272-1960. The examiner can normally be reached on M-F (9:00-4:30 EST) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on (517) 272-1957. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jermele M. Hollington
Examiner
Art Unit 2829

J.M.H.
JMH
July 14, 2004


DAVID ZARNEKE
PRIMARY EXAMINER
7/26/09